

# TO CATCH A KILLER

## Challenge

On Monday morning November 22, 2004 Carmel Police arrested Willie J. Dumes, 30, of Indianapolis, on a warrant for the murder of Stephanie Gillum. Dumes was charged with one count of Murder and one count of being a Habitual Offender in connection with the homicide of Stephanie Gillum. Gillum had been found dead in her vehicle in a parking at a local park.

Detective Brad Hedrick, Carmel Police Department, asked the City of Carmel GIS to create "a map" showing the jury where the victim was found, who she was with before the murder, and the time and location of the crime.

## Action

The first maps the Police Department requested were relatively basic: aerial photography of the investigation site, and points where evidence was found. As the investigation into the murder progressed, however, Detective Brad Hedrick approached Carmel GIS with more evidence to map.

The Detective had obtained detailed information on the victim's cell phone. Cell phones are constantly communicating with a network, sending pings to the nearest transmission tower, which enables calls to be routed correctly. As a cell phone moves, its call is handed off from tower to tower. The carrier keeps records of which towers the phone contacted and when, tracking its movement to within a few hundred yards.

Using the cell phone records and other evidence, Carmel GIS was able to create a digital "trail" of the victim's location throughout the fatal evening. The detailed map produced for the trial was one of many, many maps created for the murder investigation.



*"[Having] detailed maps of the area was crucial in providing the Prosecutor with a visual means to explain to the jury the case facts."*

## Results

The cell phone map was used throughout the murder investigation and criminal trial. The Prosecutor and members of the jury later commented to Detective Hedrick, "The map presented case evidence in a clear, concise manner. It created a clear picture of the crime events, and we were able to focus on the visual display."

In January 2007, Willie Dumes was found guilty of killing his ex-girlfriend Stephanie Gillum, and sentenced to prison.

- Tim Green  
Assistant Chief of Police  
Carmel Police Department